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THE ARCHITECT

VOLUME X · NUMBER 4 ·
· OCTOBER · 1915 ·

THE ETERNAL QUESTION

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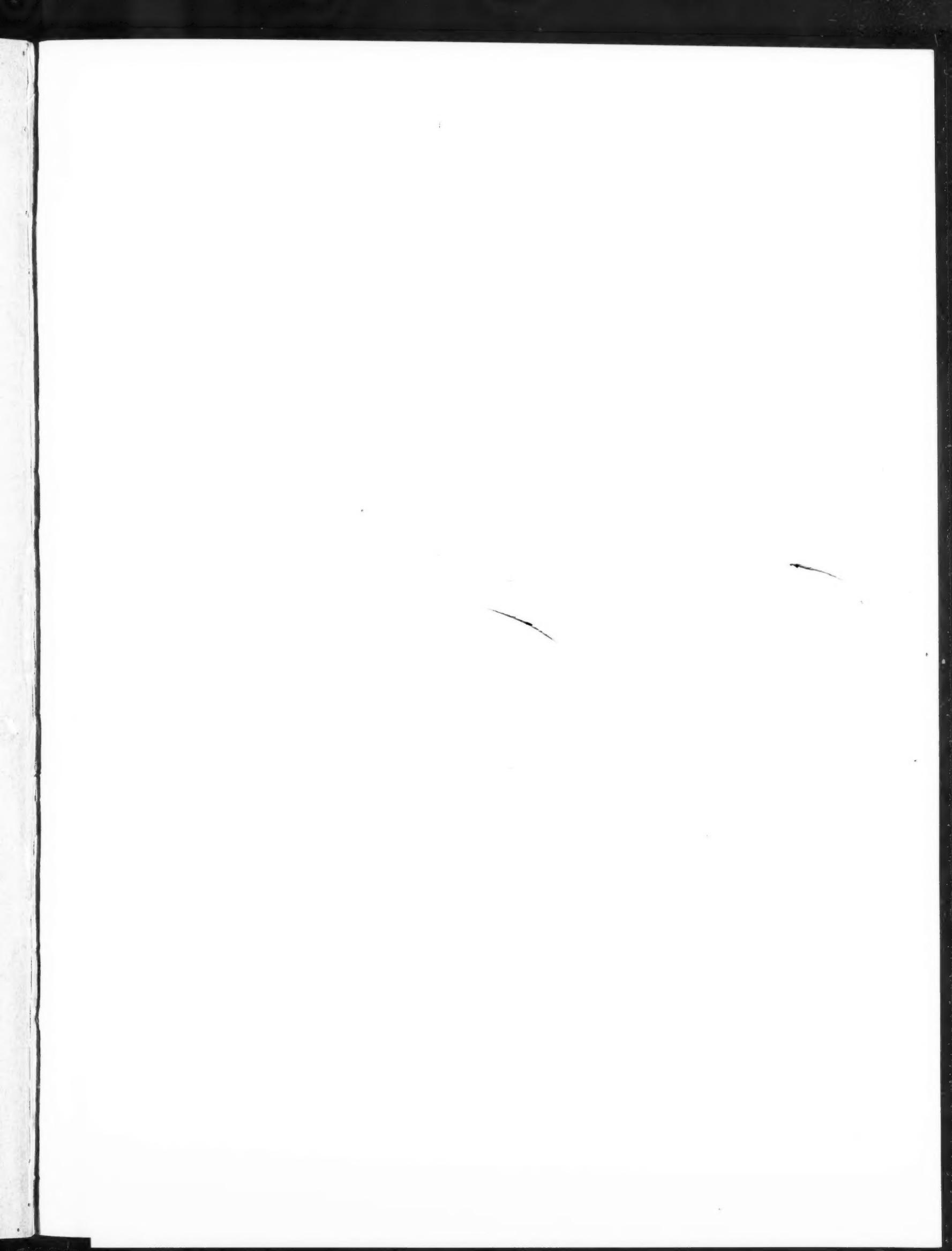
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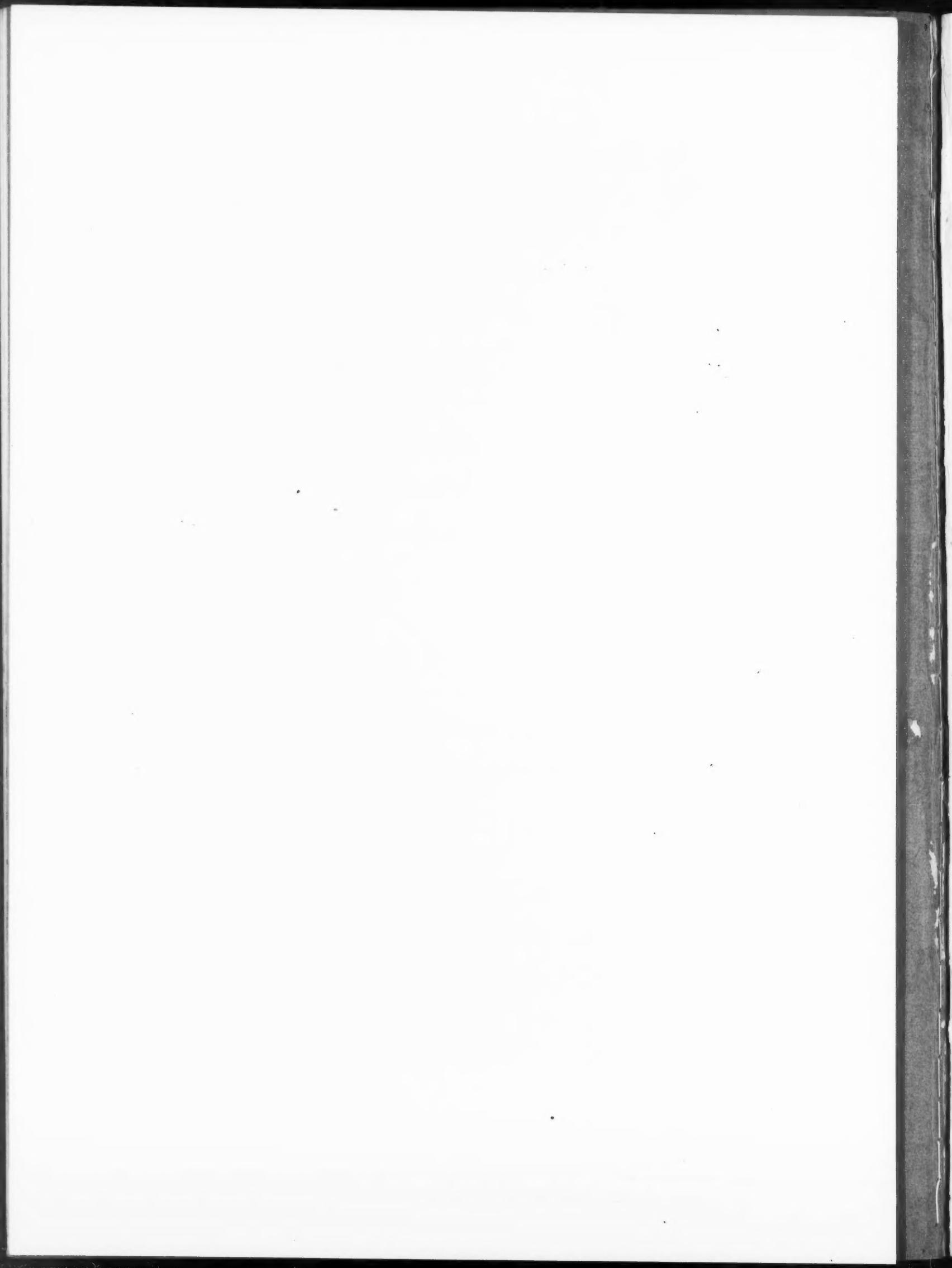
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VOLUME X

SAN FRANCISCO, CALIFORNIA, OCTOBER, 1915

NUMBER 4

J. A. DRUMMOND, Publisher CLARENCE P. KANE, Editor
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THE EDITOR WILL BE PLEASED TO CONSIDER CONTRIBUTIONS, OF INTEREST TO THE PROFESSION. WHEN PAYMENT FOR SAME IS DESIRED, THIS FACT SHOULD BE STATED. TELEPHONE DOUGLAS 3424.

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Editorial

* * *

Bring Message to Western Architects

The meetings of the American Institute of Architects to be held under the auspices of the local Chapters in Seattle, Portland, San Francisco and Los Angeles during the early part of this month, are of more than ordinary interest and significance. Naturally, the Institute party is very much interested in the growth of the cities they are to visit and the wonders of the two Expositions, but the real import of their coming lies in the message that the officials of the Institute bring to the architectural profession.

Architects often fail to realize what may be accomplished by intelligent and unselfish cooperation and the obligation which rests on the individual of doing his part in upholding the aims and dignity of the architectural profession and the support his Chapter should receive by the unwavering loyalty of its membership. The profession is very prone to accept conditions which have resulted from only the hardest kind of missionary work on the part of the Institute, the Chapter, its officers or committees, as a sort of natural evolution, without troubling itself as to how improved conditions came about. An excuse in part for this may be found in the anomalous condition hitherto existing in the relations between the Chapters and the parent body and the organization of the Chapter membership. It has long been felt that these conditions must be corrected if the Institute is to remain a vital force.

At the 1914 convention the Committee on Chapters presented a report which forms the basis for Institute and Chapter reorganization and which is to be submitted for adoption at the 1915 convention, in the form of a new constitution and by-laws for the Institute. These Constitution and by-laws, if adopted "should put the Institute on a sound and logical basis and make it truly national in scope, as well as representative of the best in architecture in America." That all of this may be made plain to the profession on this Coast is the real mission of the Institute Officials and it is hoped that the profession in general will not only avail themselves of the opportunity of learning the purposes and aims of the Institute, but will also realize "the supreme need of everyone who is honorably practicing the profession, to do his share in this work, looking not for what he may receive, but what he may give."

* * *

Judge Taft on City Planning

"I believe that you men in charge of municipalities should call the best of experts in your plans for civic improvement," said former President Taft, in a recent address before the League of California Municipalities. "You should remember that you are dealing with men who know their business and you should be willing to pay them big fees. You cannot get something for nothing nowadays. Do not let the big fee hinder you from obtaining the big man. You have to assume the responsibility of taking a city built on wrong lines and having those wrong lines turned into right lines."

Mr. Taft spoke from wide experience and unquestioned knowledge. The importance of getting the right man for this class of work should never be disputed. No amateur or near-expert should be entrusted with the beautification of any city, whether it be of the first class or the sixth class. Upon the initial work in city planning depends the future success, and no work or planning improperly done at the start can ever be successfully revamped.

True, experts in city planning are comparatively scarce, but if a city is willing to pay the price justly due an expert on this line of work, that man or kind of a man can be secured. To be proficient in city planning, a man must not only have a knowledge of engineering, architecture and other professions, but this must be backed by many years of experience, and certainly such a man is well worth a good-sized fee.

Work of the Institute.

By R. CLIPSTON STURGIS
PRESIDENT AMERICAN INSTITUTE OF ARCHITECTS

Mr. Taylor strikes the key-note of the activities of the American Institute of Architects when he says "we desire to be doing some good in some way". He is speaking for himself but incidentally for every member of the Institute. That is the real reason why architects throughout the country should be members of the Institute; that, through its agency, they may be able to do some good for their profession.

The Institute started, a small local organization, in the East. Some twenty five years ago it joined with the Western Association and had a membership of 400. Now it has spread to the Coast and the Gulf and has over 1000 members.

This number is wholly inadequate as representing the profession in our country. It would be four times this number if all men worthy of membership were in the

Institute. The work being done by the Institute is for the benefit of the profession generally and for that of the public. The thousand members bear the full financial burden of all Institute work. Out of the thousand, a small group, perhaps 200, are the real workers who give their time and thought.

This is neither fair nor satisfactory. If the burden falls on a few it often follows that action affecting the whole profession suffers from being the action of a few. The work requires not only time but money. Roughly \$20,000 a year represents the income and expenditure. With membership doubled and dues cut in two, better work, because more representative, could be done. With membership trebled, and dues cut in two, work, now beyond the means of the institute, could be undertaken.

Those who follow closely the work of the Institute know something of what has been accomplished; few except the workers know what persevering effort has gone to obtain the results. For those who know neither the one nor the other it may be worth while to touch on some of the things done in the last twenty years or so. Take accomplishment in definite fields:

Education: The Institute has fostered and encouraged the education of its draughtsmen, it has entered into relations with the schools of architecture; conferences of great benefit have been held; each year these become more vital. This year it distributed to ten schools its special medal for the best general work of one student. It has also done much through the Journal, and through its committee on Public Information to educate the public.

Professional Standards: The Institute has formally announced its stand for professional uprightness and integrity and for that mutual helpfulness which should govern all professional men, and has issued its circular and Canons of Ethics, a paper prepared with the aid of many minds and edited with great care.

Competitions: From a condition when competitions varied from an indiscriminate scramble to a regular gamble the Institute has led the way toward dignified, fair and honorable competitions. The Institute



BRYAN-WESTMORELAND GARDEN, LOS ANGELES

was largely instrumental in the passage of the Tarsney Act, for Government competitions, and although this has now been repealed and nothing has as yet replaced it, its mere operation for fifteen years has raised the standard of all Government work. The Institute will continue to work for a condition even better than that under the Tarsney Act.

Mr. Taylor shows the condition existing twenty-five years ago, a condition which everyone will recognize as existing today, with all the work done by the Institute to regulate competitions, the great public, our employers, and thousands of our fellow architects still practice and apparently believe in the scramble or gamble.

Here, as in other fields, the work of the Institute is never done. It is the owner who thinks he can get something for nothing, the architect who thinks he has an inside position, and the architect who has no work and is willing to gamble for it, who continue to support the old and discredited competition. The circular of competitions and the competition program are the fruit of years of work, patient, thorough and comprehensive. The work is not ended, but a good start has been made and every architect and every owner is free to profit by this Institute product.

Building Standards: Years ago the Institute and the Master Builders together issued a Uniform Contract. It was the best thing that had been done and had a wide acceptance. It was, however, imperfect and now after nearly ten years of the most exhaustive study, one committee after another, one edition after another, and the expenditure of a very considerable sum, the Institute alone has issued its Agreement, General Conditions and the other papers constituting the Standard Documents. These are available to every architect, builder and owner. They are not perfect or complete, but are certainly a great advance.

The Journal: A few years ago the Institute published a quarterly Bulletin of little or no value to the Institute membership and of none whatever to those outside. The Institute accepted advertising in this paper. In place of this now there is the Journal, an official monthly publication containing all information about the Institute, its meetings, its committees and its Chapters and also the best general articles and editorials. This paper has been established by means of the capital furnished by individuals who had faith in the Institute. Before long it will



SCHIFFMAN JAPANESE GARDEN PASADENA

be a source of revenue. It does not touch the field of our architectural papers as it publishes no current work and is a purely professional and official paper. It is difficult for anyone not familiar with Journalism to form any idea of the work involved in this, and how much of it fell on the Committee on Publication.

The Octagon: Of all the things accomplished by the Institute for the profession alone none is so important and so valuable as the acquisition of the Octagon. Those who have known the Institute only since its Octagon days can have no idea what a help it has been to the work to have a permanent headquarters. And when to that is added the fact that it is in the National Capital and is a house interesting both historically and architecturally, one can readily see what this has meant and will mean to the Institute. A few men, a small number, with large ideas, unbounded faith and the generosity of the cheerful giver, made this possible. The recent special meeting in New York was held to correct an old technical error and make our headquarters a reality. The old New York

Continued on Page 186

Landscape Architecture, an Art With a History.

BY PROFESSOR J. W. GREGG
DIVISION OF LANDSCAPE GARDENING, UNIVERSITY OF CALIFORNIA

Happy is he who has a home though it be but four square walls; double happy is he if he possesses in addition a strip of mother earth; and thrice happy is he whose home grounds are bright with bud, leaf, and bloom, rejoicing the eye of the passer-by as well as the visitor within its confines and bringing happiness and content to its owner.

It has been said that "the happiest days of the human race were spent in Eden's Garden where the landscape was one of the fundamental conditions of life." The nearest approach to that "Paradise not made with hands, eternal in the heavens," is still the garden, embowered in nature's richest green, gemmed with lovely flowers and luscious fruits, and where under one's own "vine and fig tree," one can rest or wander at will. The landscape is still one of the fundamental conditions of human existence and our chief teacher in the world of beauty. Why then should we not seek to become more intimately acquainted with some of the fundamental principles that govern correct landscape design, appreciate it as we do other fine arts and recognize it as we do other professions.

A fine art has been defined as "that practice which seeks to create organized beauty but uniting several dissimilar elements in one harmonious whole, in such a way as to produce a refined and pleasing impression." Landscape architecture is the practice of arranging the surface of the land together with all the various elements on the surface, for human use, habitation, convenience, and enjoyment in such a way as to create a beautiful picture or composition possessing all the economic and aesthetic qualities of an organized whole. It is the correct expression of an ideal conceived by the human mind and as such is an art. Indeed it is a fine art and can be classed with such other fine arts as architecture, painting, sculpture, literature and music. Literature is recognized as an art

and is claimed by many to have been the foundation of human existence. History however, seems to indicate clearly that the landscape was the real foundation of human existence, thereby classifying literature as a product of that existence. Which is the older, therefore, landscape or literature? In the light of the rather

modern interpretation of the art of landscape design and its present vogue, people have a tendency to recognize it only as a new idea, having behind it no precedent, and no history productive of principles and standards similar to those governing other arts and sciences. One has but to look back of its present vogue, how-

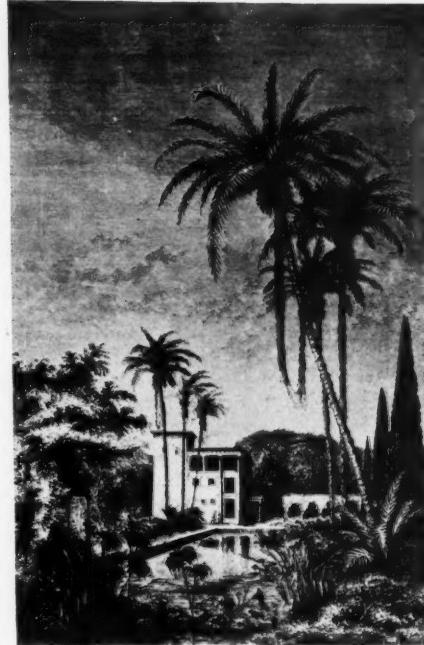
ever to discover that this is one of the very oldest of arts with a history that is quite as interesting, quite as long, and quite as productive of correct principles and standards by which we can as efficiently and aesthetically govern and measure correct design today, as did the early Egyptians centuries ago. The early history of the art seems to indicate it originated first for the purpose of supplying a primitive economic want, and later to satisfy a desire for luxury and refinement.

Descriptions of such ancient gardens are found in the Bible, in old paintings, sculpture, and manuscripts, especially those from Egypt, Italy, and Greece. Landscape gardening, therefore, appears coeval with the earliest tradition. The Garden of Eden had every tree good for food or pleasing to the sight. Solomon says, "I planted me vineyards; I made me gardens and I planted trees in them of all kinds." The Egyptians and Persians and other remote nations prided themselves on their beautiful gardens and estates. The most conspicuous example of the art among the ancients were the great hanging gardens of Babylon; a series of terraces supported by stone pillars, rising one above the other, three hundred feet in height and planted with all manner of stately trees, shrubs, and flowers, interspersed with seats, and fountains, furnished with water from the Euphrates, all the effort of a great king to recall to his Median queen the beauties of her native country.

The celebrated Athenian philosophers made their sylvan landscapes their favorite schools. The gardens of Epicurus and Plato appear to have been symmetrical groves of olive, palm and elm, adorned with elegant statues, monuments, and temples, the beauty of which for their particular purpose has never been surpassed by any examples



VILLA EGYPTIENNE



JARDINS DE L'HÔTEL SAINT-PAUL



JARDINS SUSPENDUS DE BABYLONE

show how beautiful these must have been and how carefully the Greeks studied and thought out all such problems. No people before or since were ever more thoughtful of matters of design in the arrangement of their grounds and the placing of their statuary and buildings to fit the slightest bit of unusualness of topography. All this is very different from gardening, and here, as in Egypt, we note the application of true principles of design. The Roman conquerors took these thoughtful designers of the best landscape art of the Greeks, together with their other artists, to Rome, and as a result, Roman estates and villas reflect this fine Greek influence. The greater wealth available and the changed physical conditions brought forth from the fertile brains of these designers new forms of landscape art evidenced by the ruins of the great Roman and Pompeian estates and gardens that have come down to us. Here are shown not only the ideas of Egypt and Greece modified to meet

new conditions, but careful consideration of the questions of distant views and vistas. It is clear that these men planned to have informality at a distance from their palaces and formal terrace close by. There was a thorough appreciation of the need of the same architectural style throughout—in a word, unity. This is again correct design and what we are seeking for today.

of modern times. The villa grounds of the Emperors Nero and Adrian were enriched with everything magnificent and pleasing, while the classically famous villas of Cicero and Pliny are among the most celebrated specimens of the taste of the ancients.

Homer's famous description of the grounds of the Palace of Alcinous

We find among the Romans some of the best and very earliest carefully designed city squares and public parks. These in some cases were first designed for the private grounds of the emperor and others, but later given to the people partly to gain popularity. In the preparation of them, houses were removed and the resultant

space treated as open public grounds laid out with rare skill and dedicated later to the use of the people. Fitness, definiteness of purpose, a careful consideration of the question of scale as well as beauty and art and unity were all studied, and, as a result we can today, to our very great advantage, study these designs in connection with our own efforts in planning public parks and squares.

The habit of setting aside such areas for the recreation of the people grew apace, and the question of their distribution throughout the city was studied with care, and as a result Rome was very well supplied with parks and they were particularly well distributed. Under the empire the park areas of Rome were one-eighth of the total area of the city. We today are struggling with this part of the problem in our own city planning.

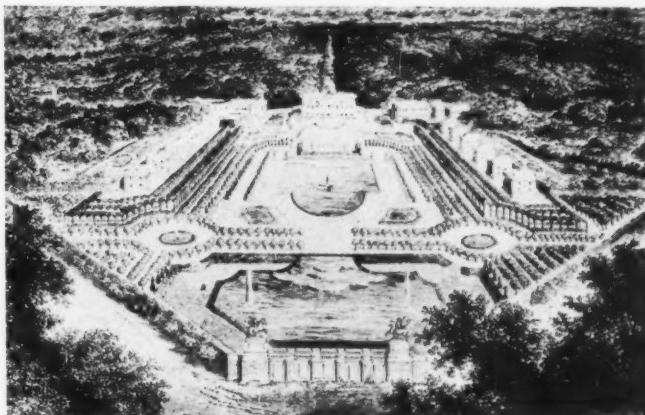
Then came the setback of the so-called dark ages, but the flame thus lighted was never completely extinguished and finally

burst forth again in the Renaissance more gloriously than ever. Even in the mediaeval times we find evidences of an effort at design in gardens and grounds, but there was more or less similarity to the work of the Greeks in this respect.

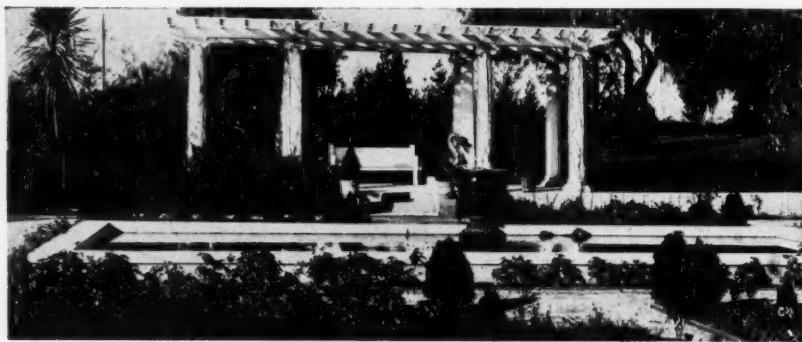
Mediaeval designers were, however, influenced by limited financial and other resources, and by lack of labor



JARDINS BOBOLI A FLORENCE



VUE DU CHATEAU ET DU PARC DE MARLY



A. I. A. Members Meet in San Francisco



MEETING will be held on Friday, October 8th, in the Italian Room of the St. Francis Hotel at 2 o'clock in the afternoon. It will be under the auspices of the San Francisco Chapter of the A. I. A. All Architects, Architectural Draftsmen and Students of Architecture are invited to be present at this important gathering.

The President of the American Institute of Architects, Mr. R. Clipston Sturgis, and the Officials who are accompanying him from the East, will explain the aims of the Institute in its relation to the Profession of Architecture and what it is endeavoring to accomplish. It is hoped that all Architects practising in the State and those visiting the Exposition will endeavor to attend this meeting and urge their Draftsmen to be present.

At 3:30 P. M. of Monday, October 11th, which the Officials of the Panama-Pacific Exposition have selected as Architects' Day, President Charles C. Moore will present to the President of the American Institute of Architects a Commemorative Scroll in recognition of the Architectural profession. This presentation will take place in the Court of the Universe.

You are urged to be present at these two meetings and make them Memorable Days in the History of the American Institute of Architects.

W. B. FAVILLE,
President.

SYLVAIN SCHNAITTACHER,
Secretary.

OCTOBER, 1915

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GROUND FLOOR ELEVATOR HALL
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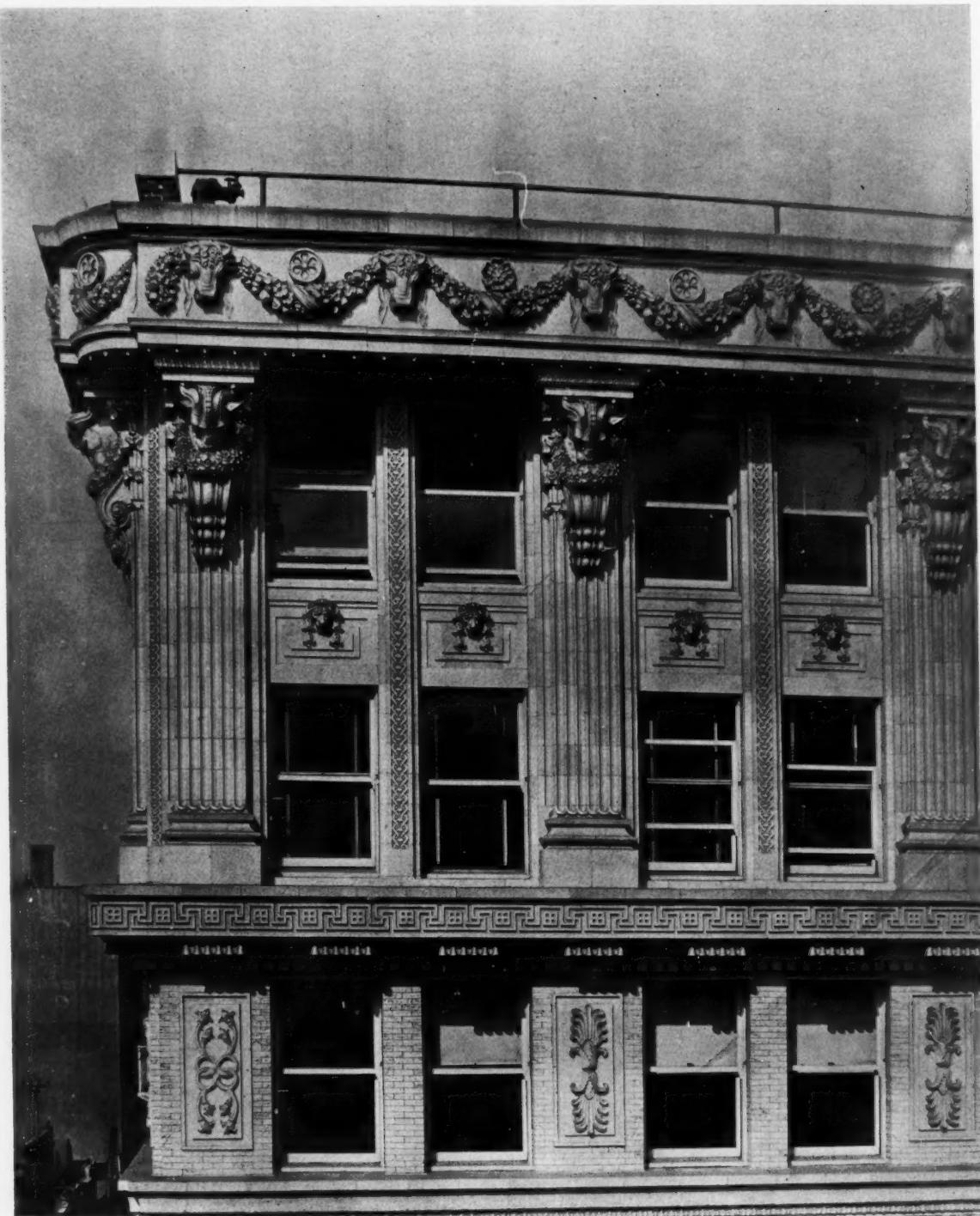


ENTRANCE TO BANK
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DETAIL OF UPPER STORIES
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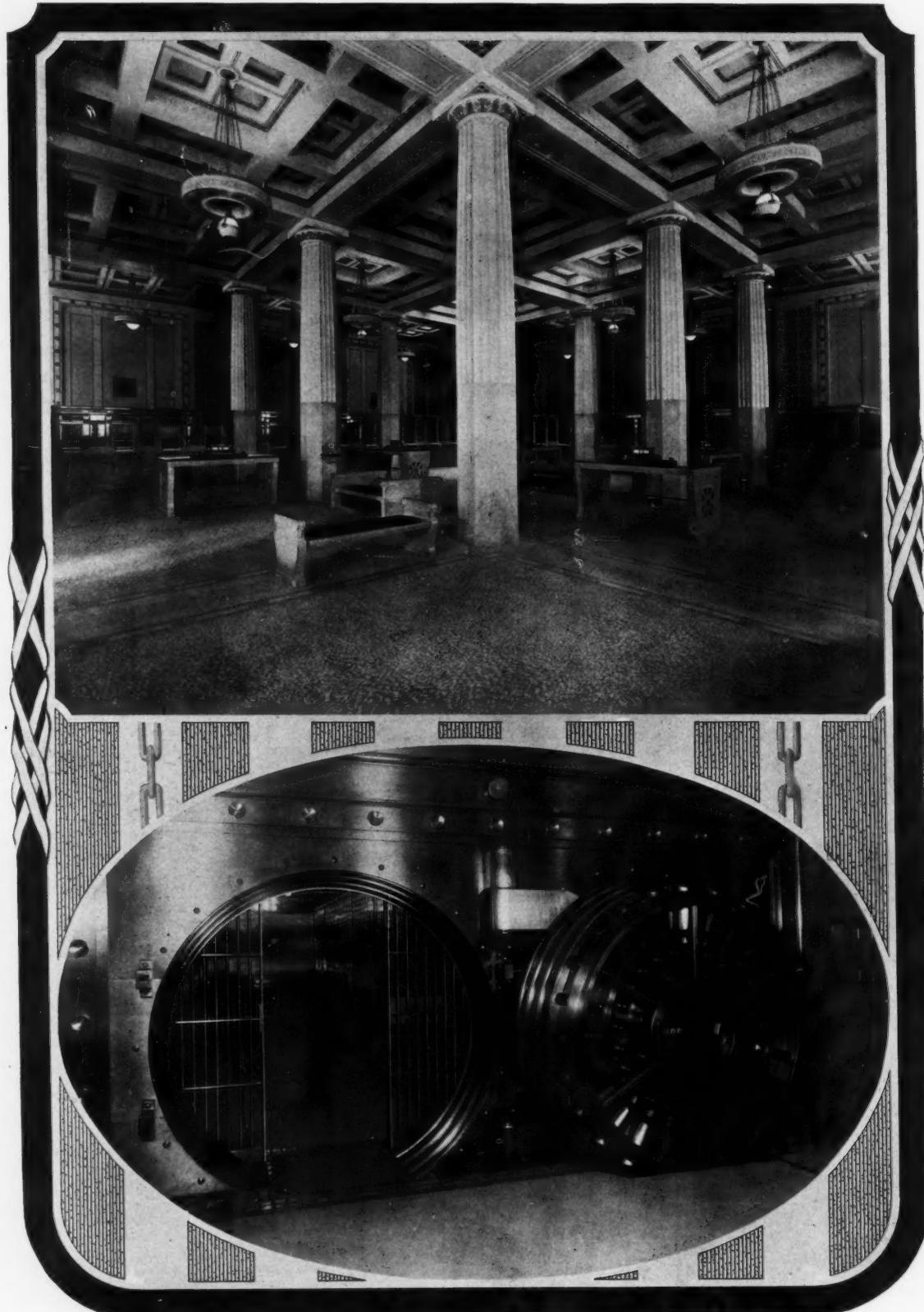


DETAIL OF FIRST AND SECOND STORIES
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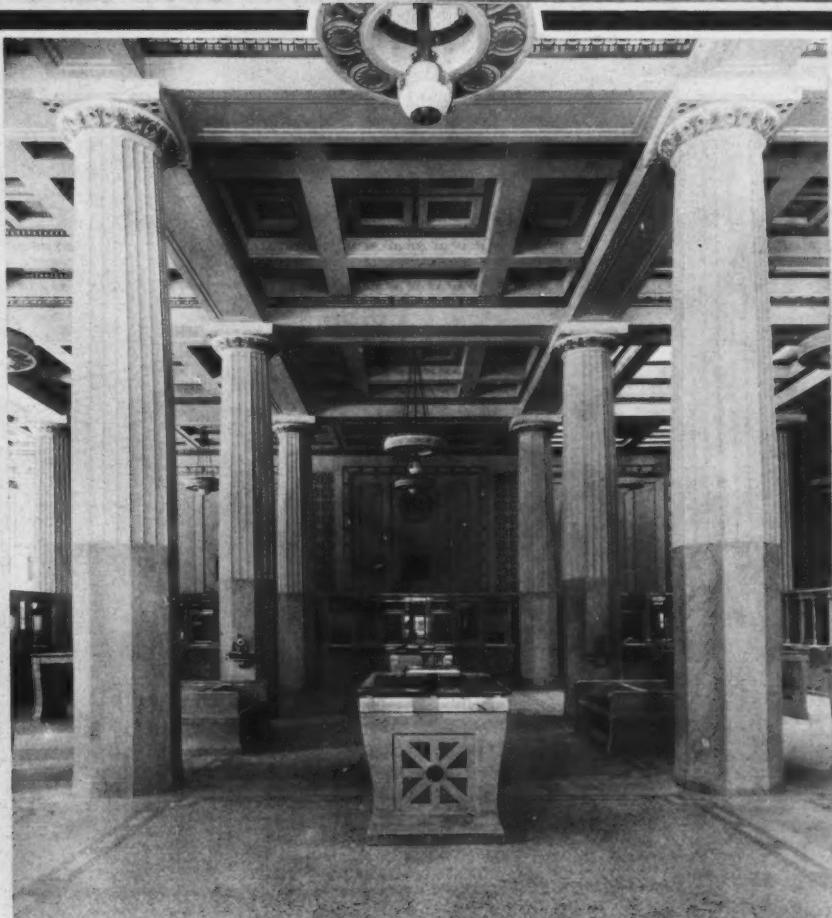


GENERAL VIEW INTERIOR BANKING ROOM AND SAFE DEPOSIT VAULT DOOR
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OFFICERS' PLATFORM AND WRITING DESK
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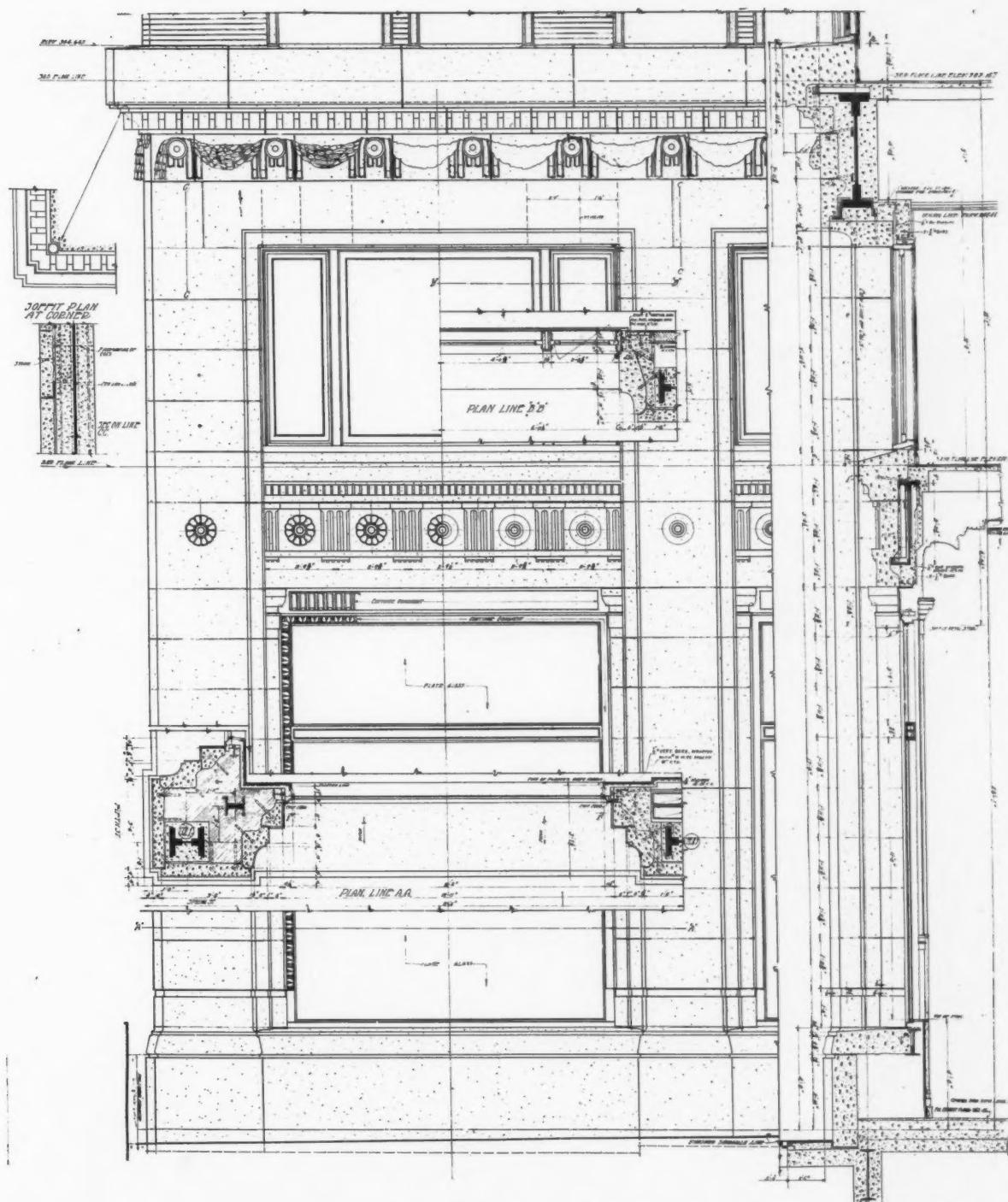


EXTERIOR DETAILS
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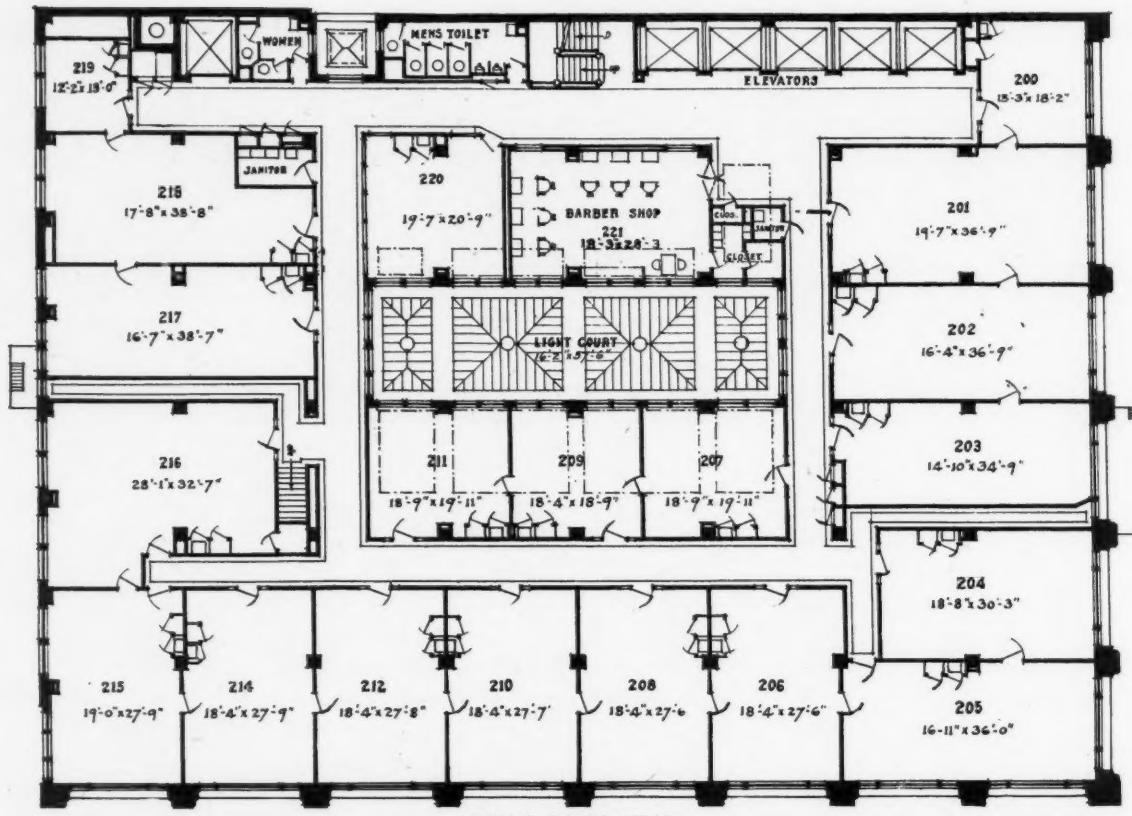


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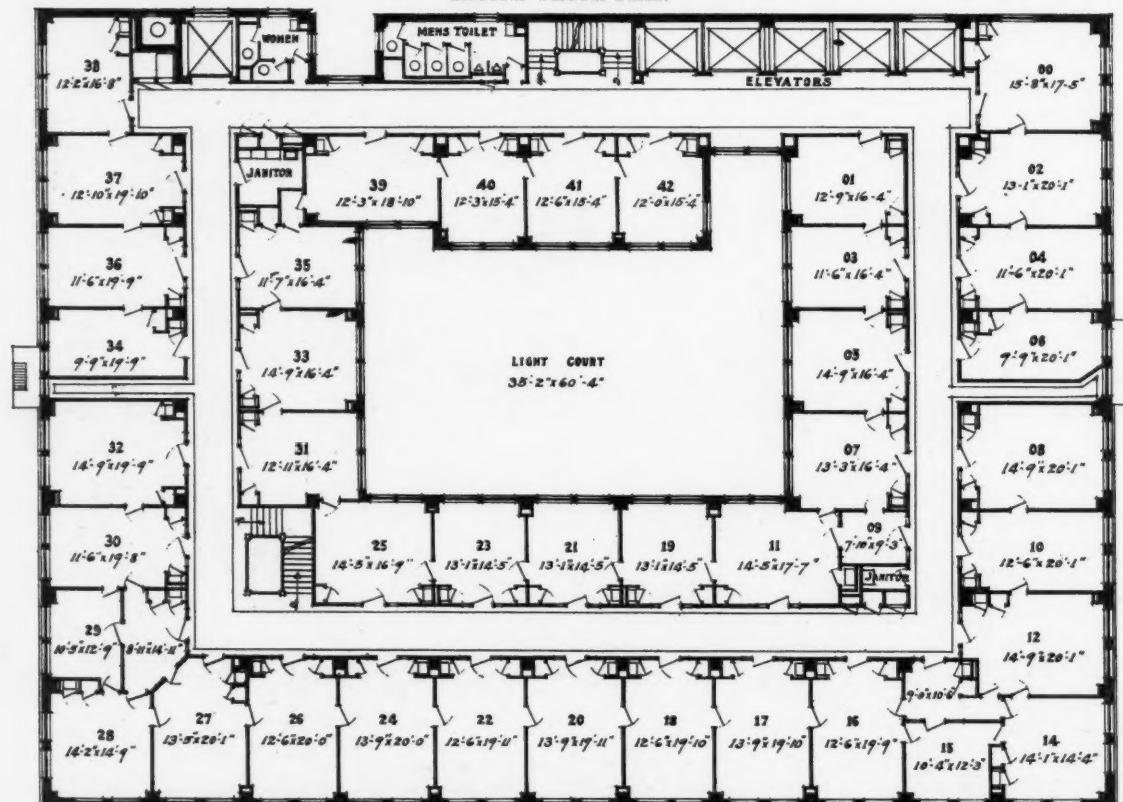
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SECOND FLOOR PLAN



TYPICAL FLOOR PLAN

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SOUTHERN PACIFIC ARCADE DEPOT, LOS ANGELES
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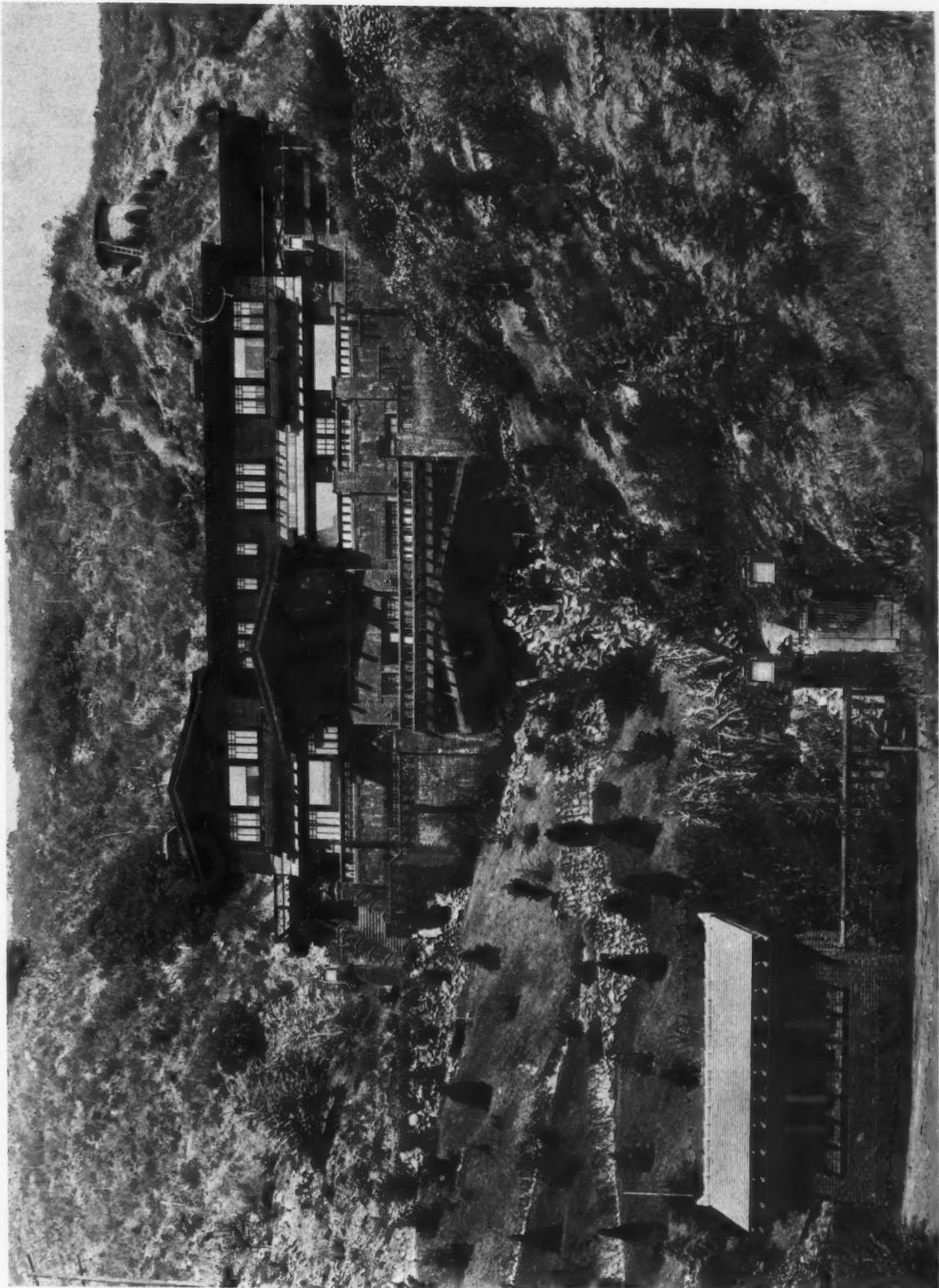


MAIN CONCOURSE
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F. E. ENGSTRUM RESIDENCE, ARTEMISIA, CANYON ROAD, HOLLYWOOD
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VIEW FROM DRIVEWAY



PATIO AND GARAGE
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F. A. BROWN, ARCHITECT

OCTOBER, 1915

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DINING ROOM



MAIN STAIRCASE AND LANDING
F. E. ENGSTROM RESIDENCE, ARTEMISIA, CANYON ROAD, HOLLYWOOD
F. A. BROWN, ARCHITECT

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LIVING ROOM SHOWING VIEW OF MANTLE



LIVING ROOM SHOWING SCREEN TO PIPE ORGAN
F. E. ENGSTRUM RESIDENCE, ARTEMISIA, CANYON ROAD, HOLLYWOOD
F. A. BROWN, ARCHITECT

Electric Traction Elevators.

So consistently, during the past ten or fifteen years, has the electric elevator proven its superiority over the elevators operated by other motive power, that it may now be stated without fear of contradiction that the electric elevator has become the standard type for modern building use.

Without considering in detail the technical features of the hydraulic elevator in comparison with the geared and gearless types of electric elevators, the principal reasons for the change to these latter types may be summarized as follows:

1. Higher initial cost of hydraulic installation.
2. Larger amount of total space in building occupied by machinery.
3. Lower car mileage and in consequence more elevators required for same service.
4. Higher Power Consumption.

The first electric elevators developed about twenty-five years ago, were confined entirely to the drum type of machine, that is, a machine with a grooved drum about which the hoisting cables are wound and which is driven through worm gearing by an electric motor. This type of machine, however, was found wholly inadequate for the steel skeleton skyscrapers of great height not only because of the very large drum sizes necessary to accommodate the cables of these high rise elevators, but also because of the practical speed limitations of these types. Accordingly, the traction principle of construction was adopted and developed resulting in the geared and gearless traction types of electric elevators.

The electric traction elevator derives its name from the fact that motion is obtained by means of the traction existing between the driving sheave and the hoisting cables. In order to produce the necessary tension for this result, the hoisting cables, from one end of which is suspended the car and from the other end the counterweight, pass partially around the traction driving sheave in lieu of a drum, continuing around an idler leading sheave, thence again around the driving sheave, thereby forming a complete loop around these two sheaves. This method of roping is plainly shown in Figure 1.

The principle of the traction drive is obviously very old and has been used on hand power dumbwaiters

for a number of years but its commercially successful application to an elevator machine, consisting of a slow speed electric motor directly connected to the driving sheave, was first accomplished by the Otis Elevator Company about ten years ago.

At first glance it would appear as if the traction drive would be rather uncertain when considering that the ropes are not actually hitched to the driving member, that they simply go around the driving sheave of the motor and depend solely upon friction or adhesion between the ropes and the driving sheave. This, however, as has been amply proven by exhaustive tests, is not the case; on the contrary, it is safer than any other method of drive.

The traction drive has a number of inherent safety features. Traction elevators are so arranged that in case of overrun at terminals, either the car or counterweight bottoms on a buffer, thereby reducing the traction sufficiently to prevent further motion of the car and counterweight, even if the motor keeps on running. The car buffer is usually an oil buf-



EQUITABLE BUILDING
E. R. GRAHAM, ARCHITECT



WOOLWORTH BUILDING,
CASS GILBERT, ARCHITECT

fer of a spring return type and is mounted in the bottom of the hatchway. The counterweight buffer, which has gravity return, is attached to the counterweight and in addition to performing its function as a buffer, acts as counterbalance.

The counterweight equals in total weight the weight of the car plus, usually, about 40 per cent of the maximum load. If we consider an elevator of 2500 lbs. lifting capacity, 40 per cent of this equals 1000 lbs. (the overbalance) and this represents about six or seven persons. Thus, with six or seven persons in the car, giving balanced condition, it is apparent that there is no net load to be lifted and the only power required is for acceleration and for overcoming friction and electrical losses.

It is obvious that with a high rise elevator the variation in the net load on the elevator machine due to the shifting of the weight of the hoisting ropes from one side to the other of the driving sheaves as the car moves up and down, would be excessive if this were not compensated for. This compensation is usually obtained by means of chains or ropes attached to the car and counterweight, and running down the hatch in a loop. As shown in Figure 1, the compensating ropes run down from the bottom of the car to the tension sheave in the pit and up to the counterweight. The weight per foot of these compensating ropes is such that they together with the electric cables (that lead to the car) will compensate the weight of the hoisting ropes regardless of the position of the car.

The electric motor used with the gearless machine

COMPLETE INSTALLATION OF A 1:1 GEARLESS TRACTION ELEVATOR

is of slow speed type, usually provided with shunt field only. The armature is series wound with conductors of rectangular cross section in order to get the maximum amount of copper in the armature. With a 36 inch driving sheave, a car speed of 600 ft. per min. corresponds to 63.6 r. p. m. of the motor.

Up to a comparatively late date, it seems to have been the general impression that a motor of moderate duty,

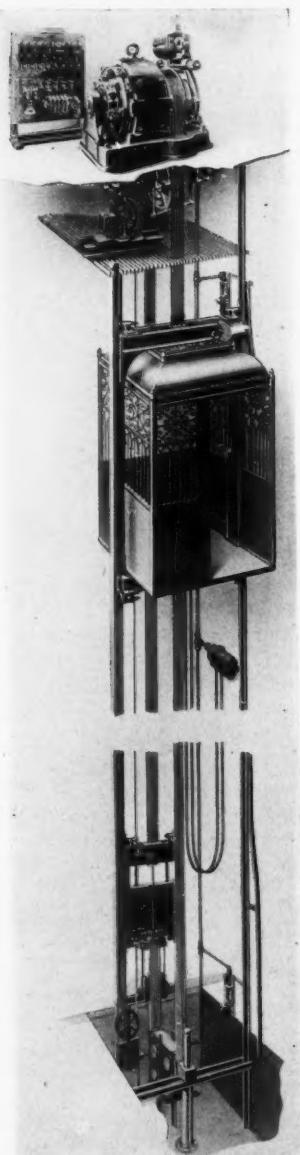
having a speed so exceedingly low as that required for this gearless type of elevator, would also have a low efficiency; but this is not the case. On the contrary, it has been thoroughly demonstrated that a motor with this low speed can be designed to have just as high efficiency as any high speed motor of equal output. One peculiar feature about the efficiency of this motor is that it is unusually high at light loads. This is of particular advantage in connection with elevators where the average load is usually less than one-half its rating.

The Gearless Traction elevator may be used for any rise whatsoever, since this design does not have to consider a drum upon which the hoisting cables are wound. The direct drive and consequent elimination of all intermediate gearing between the motor and driving member results in a machine of very high efficiency and prevents absolutely any possibility of vibration or noise. With the slow speed motor employed, the momentum is much less than with a smaller high speed motor, permitting of greater ease in starting and stopping and resulting in a smooth and practically faultless movement of the car. Moreover, the compact and simple arrangements of parts effects the greatest simplicity of installation and economy of space. The elevator machine is almost universally placed over the hatchway.

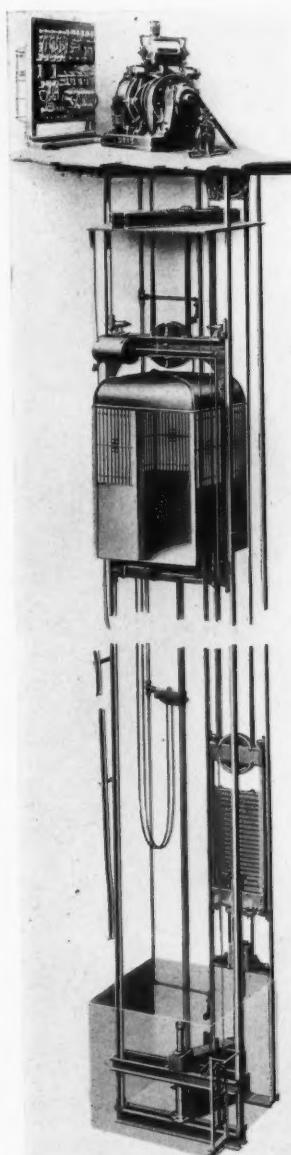
The controller used with these elevators embodies the application of electro-magnetic switches. It is actuated by a master switch in the car and gives unexcelled starting, accelerating, retarding and stopping effects.

The 1:1 gearless traction elevator just described, and illustrated in Figure 1, is designed for car speeds of from 550 to 700 ft. per minute. Practically all very high buildings in which high-speed elevators are required are now being equipped with this type of elevator.

For buildings of more moderate height in which elevators of from 250 to 450 ft. per min. are desired, the 2:1 gearless traction elevator is widely used. This type re-



COMPLETE INSTALLATION OF A 1:1 GEARLESS TRACTION ELEVATOR



COMPLETE INSTALLATION OF A 2:1 GEARLESS TRACTION ELEVATOR

tains the safety features and general characteristics of the 1:1 gearless machine. The method of roping employed with this construction is shown in Figure 2. In this cut, the additional sheaves on car and counterweight can be observed.

Geared Traction Elevators

The modern adaptation, in the Otis Gearless Traction Elevator, of the traction drive for high-speed elevator service showed so conclusively the merits of the traction principle that the question naturally arose as to the feasibility of employing this method of drive in the slower speed machines as well. The result was the introduction of what is known as the Geared Traction Elevator, which embodies many of the good points of the Gearless Machine.

The Geared Traction machine is similar in appearance to the standard drum machine, except that a multi-grooved driving sheave is mounted in place of the drum, and a non-vibrating idler leading sheave takes the place of the vibrating sheave necessary on the drum type. The car and the counterbalance weight hang directly from the driving sheave—one from each end of the cables—in precisely the same manner as with the Gearless Traction Elevator, the necessary amount of traction being obtained by the extra turn of the cables around the idler sheave.

Geared traction machines are built in two classes, single screw and double screw.

The gearing of the single screw machines consists of a worm which meshes with a single gear, ball thrust bearings being utilized to take up end thrust of the shaft. The worm, partly submerged in oil, the gear and the thrust bearings are all enclosed in an oil-tight iron case and are well lubricated in every part.

The gearing of the double screw machine consists of a right and left hand worm accurately cut from a solid forging. This worm, coupled directly to the electric motor, meshes with two bronze gear wheels, which in turn mesh with each other. The complete gear is fully protected in an oil-tight housing.

When three bearings are provided to support the driving sheave, worm wheel and shaft, the shaft passes directly through the driving sheave and the worm wheel center, and is securely keyed to both, providing a strong and satisfactory drive.

When two bearings are used for the support of the driving sheave, worm wheel and shaft, the method of driving through the use of keys in the shaft is eliminated, the power being transmitted direct from the gear center to the driving sheave.

The machine is equipped with a mechanically applied and electrically released double shoe brake. The shoes are applied against a pulley of ample diameter and width to dissipate any heat generated, this pulley serving as a coupling between the motor shaft and the worm shaft.

The brake shoes, normally, are bearing against the

pulley with a pressure corresponding to the compression of the two helical springs. When current is admitted to the solenoid brake magnet, and then only, the action of the springs for the time is overcome, so that the shoes are released. It will be seen, therefore, that the brake will apply with full force should a failure of current occur, resulting in an immediate stop of the elevator.

The motor for direct current is compound wound and runs usually at about eight hundred revolutions per minute at full car speed and load. The series field is used only at starting to obtain a highly saturated field in the shortest possible time, and is then short-circuited, allowing the motor to run as a plain shunt wound type.

Rope guards are provided to prevent the cables from leaving their grooves in the event of either car or counterweight bottoming. The same effect is obtained on these machines as on the Gearless Traction Elevators when the cars or counterweights strike their buffers in the pit; namely, that the tractive effort is so much reduced as to make it impossible for the sheave to drive the cables. This is a most desirable characteristic inherent in all traction machines for the reason that rope strains can never increase beyond a certain limit, well within the factor of safety of the cables and fastenings. This means that the danger of the car or weight dropping, as a result of being pulled into the overhead work and thus breaking cables or fastening, is eliminated.

These machines can be arranged for car speeds up to 400 feet per minute with 2,500 pounds, or for decreased speeds with correspondingly increased loads.

To meet the demands in districts where Alternating Current is in use, the same apparatus described is furnished except that the direct current motor and controller give place to an alternating current motor and controller. The Alternating Current machines are also made in two classes, single and double screw. The brake is slightly different in appearance but performs the same functions as does the direct current brake.

The widening use of Alternating Current in congested sections has prompted a particularly important development in the design of an Alternating Current Motor and Controller giving variable speeds. This achievement not only adds to the smooth travel of the car and to its starting and stopping qualities but throws open a broad field for the use of a comparatively high speed geared traction machine in Alternating Current districts.

Safety devices similar to those used with the Otis Gearless Traction Elevators are furnished with the Geared Traction Elevators.

Machines of the geared type are most suitable when lower speeds are involved or when the service conditions are not so severe. Under these conditions the power consumed will be comparatively small on account of the lesser mileage, and hence the more expensive gearless machine with its reduced power consumption may not be necessary.

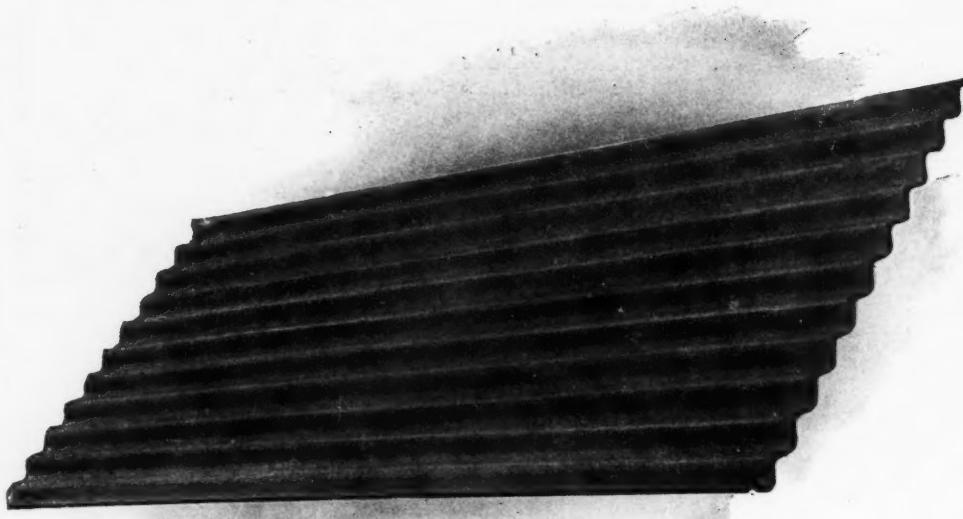
A Corrugated Sheet Asbestos Concrete for Roofing and Siding.

BY GEORGE H. GIBSON

The weather and fire resisting qualities of Portland cement concrete recommend it as a covering for buildings, but because of its low tensile strength it cannot be used alone, except in massive construction. Layers, sheets or plates of concrete must be reinforced. Unfortunately, the materials ordinarily used for reinforcing, viz., steel and iron, are in a short time destroyed by water and air which penetrate the thin and more or less porous layer of cement and such reinforcement is therefore not practicable.

Efforts have therefore been made to employ as a reinforcing material some substance which would lend the necessary tensile strength and toughness to the cement but which would be unaffected by atmospheric influences. Such a material has been found in asbestos, or mineral flax, which is a fibrous hydrated silicate of magnesia and is found in considerable quantities as veins; up to several inches in thickness, in the serpentine rocks in the Province of Quebec and in other mountainous districts. The fibres of certain grades of asbestos are exceedingly fine, tough and flexible, and have a tensile strength of 10 to 20 tons per square inch.

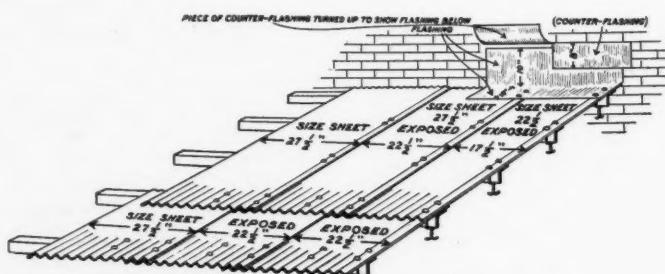
The incorporation of the asbestos fibres with the cement in such manner as to form a dense, tough concrete, demands special treatment. It is not feasible to mix the materials dry and add water afterwards, as proper bonding is prevented by the numerous films of air which surround the asbestos aggregate, and only a



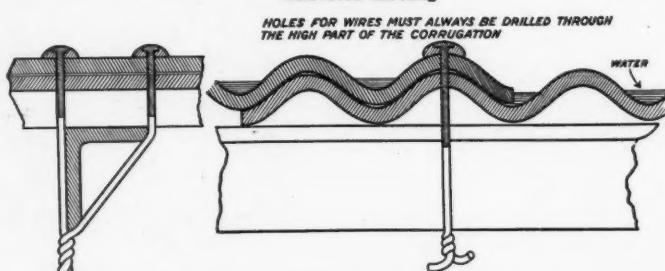
Individual Sheet of Ambler Corrugated Asbestos Roofing
27½ Inches Wide, 4, 5, 6, 7, 8, 9 and 10 Feet Long

small of the total cement used becomes properly hydrated. The pores caused by the presence of air during the hydrating process take up water by capillary action after the material has hardened, and due to the numerous voids and fissures the resulting concrete is weak. When water is added to a mixture of cement and aggregate, the first effect of surface tension is to draw the aggregates together in groups, which can be broken up only by persistent mixing. If not broken up, such groups become covered by a colloidal solution of the more soluble aluminates of the cement which bind the particles together so effectively that further mixing will not break them up, thus preventing hydration of the cement in the interiors of these small masses.

The problem of successfully making an asbestos cement concrete wherein all the cement particles were thor-



Method of Overlapping and Fastening Sheets of Ambler Corrugated Asbestos Roofing

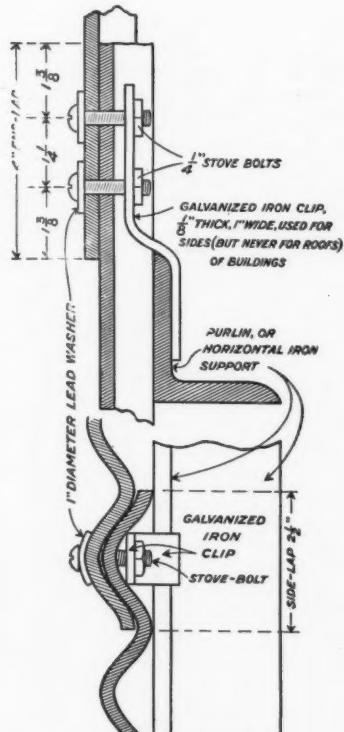


Method of Using Aluminum Wire Fasteners for Attaching Corrugated Asbestos Roofing to Purlins

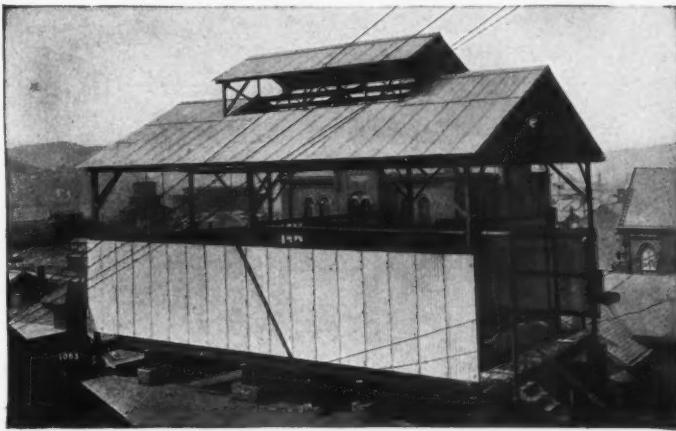
oughly hydrated and united with the asbestos was solved by Ludwig Hatschek, an Austrian, whose patents are now worked extensively in all civilized countries, the Hatschek plant in Austria alone turning out yearly 100,000,000 square feet of asbestos concrete roofing material. The Hatschek process may be described briefly as follows: Hydraulic cement, of a high and uniform grade, is first thoroughly mixed with water and asbestos fibre of the chrysotile variety, in a beating engine similar to that employed in the manufacture of paper pulp. The prolonged vigorous mixing and agitation to which the material is here subjected results in the formation of uniform pulp, having the properties of a colloidal solution, one of which is that the small solid particles will remain in suspension indefinitely. The material then passes to the vat of a modified mill-board or paper machine, wherein it is kept in a state of agitation until picked up in thin coatings by a fine wire screen on a revolving cylinder, from

which it is passed by an endless felt belt to a second rotating cylinder upon which it accumulates in layers until the desired thickness has been attained. The material is then cut across and removed in the form of sheets which are piled one upon another and placed between metallic plates. The latter are then subjected to heavy pressure to compact the material, drive out excess water and eliminate all voids and fissures. Due to the numerous layers the asbestos fibres cross each other in all directions, giving a texture of great homogeneity and toughness.

After proper



Method of Using Galvanized Iron Clips for Fastening Corrugated Asbestos Siding to Horizontal supports

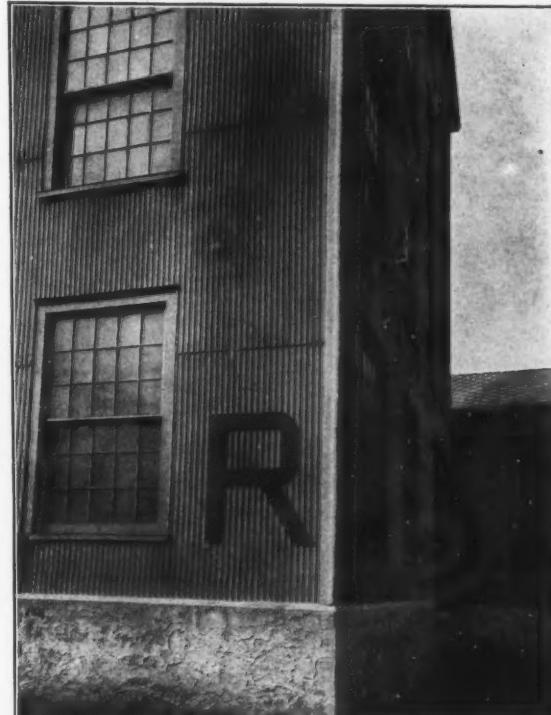


Ambler Corrugated Asbestos Roofing and Siding Used for Intercepting Spray from Atmospheric Condenser Installed on Roof of Brewery

seasoning to allow for the "setting" of the cement, the sheet thus formed combines considerable strength and toughness with lightness, and besides being incombustible, is also an excellent heat insulator. Shingles prepared in this manner are made in different colors, as the natural concrete grey, slate and Indian red, and have come into wide use for covering residences and other buildings.

As their weight as applied is little more than that of ordinary wood

shingles, they can be used in many places where slate and ordinary tile would be inadmissible. Larger sheets are made in various thicknesses from $\frac{1}{8}$ to $\frac{5}{8}$ inch, and are used not only for exterior and interior building purposes, particularly where fireproofing is desired but also in the manufacture of many articles where incombustibility and heat and electrical insulation are required, as for instance, in the manufacture of gas and electrical circuit breakers, refrigerators, soda fountains, stoves, switchboards, letter files, safes, etc.



Ambler Corrugated Asbestos Used as Siding with Ambler Flat Asbestos Building Lumber for Framing, and Asbestos Ridge Roll on Corners. Neighboring Building Covered with Century Asbestos Shingles



Flat Asbestos Building Lumber Used in Half Timber Effect on Residences Roofing of Asbestos Shingles

For covering large surfaces, asbestos concrete sheets made up in corrugated form offer greater strength and the corrugations lend themselves to the ready making of joints where the material is applied as roofing or siding. The problem of manufacturing corrugated sheets was taken up some ten or twelve years ago by interests connected with the Keasbey & Mattison Co., of Ambler, Pennsylvania, probably the largest miners of asbestos and manufacturers of asbestos products in the world. Their first endeavor was to take the flat sheets of asbestos building lumber, manufactured as previously described, and to bend them while soft into the corrugated form, one corrugation at a time. To give the material greater tensile strength, iron wire mesh or screen was imbedded between the layers of asbestos concrete. This was partially successful, but it was found that in some cases, particularly where the material was exposed to corrosive fumes or to salt air, sufficient moisture would enter through minute fissures in the convex side of the corrugations to cause the rusting and ultimate disintegration of the reinforcing material. The use of metallic reinforcement was therefore discarded, and the process of manufacture so modified that the material could be compressed while in the corrugated condition, a pressure of about 100 tons per square foot being employed.

The result has been to produce a dense and thoroughly compacted structure, which will not only withstand rough treatment, but is unaffected by weather influences. Corrugated asbestos sheets for roofing and siding purposes are made of a uniform width of $2\frac{1}{2}$ inches, comprising eleven complete corrugations, and in lengths of 4, 5, 6, 7, 8, 9, and

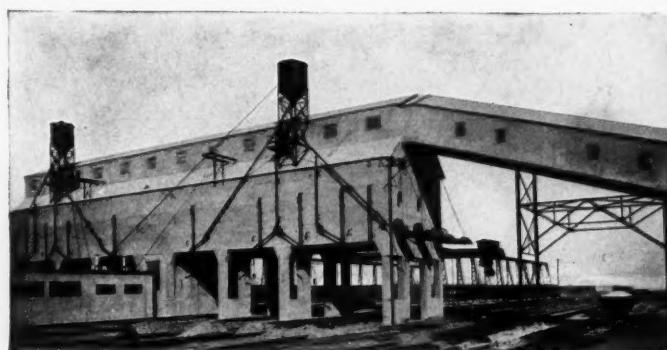
10 feet. The corrugations are $2\frac{1}{2}$ inches wide and 1 inch deep from top to bottom of corrugation. The material varies in thickness from $\frac{3}{16}$ to $\frac{5}{16}$ inches and weighs from 2.8 to 3 lbs. per square foot.

The method of applying and supporting the material for roofing and siding purposes is shown by the accompanying drawings. Roofing is lapped two corrugations sidewise and six inches endwise, the inclined joints in succeeding courses being staggered from those of the preceding courses by the amount by the side overlap. Supporting purlins are so spaced that the greatest distance between purlins shall not be more than 36 inches for roofing or 40 inches for siding.

The best device for attaching roofing to steel and iron frame work has been found to be aluminum tie wires. Two holes are drilled through the asbestos, one just above and one just below the purlin, care being taken to locate the holes in the tops of the corrugations and to make them no larger than necessary for drawing through the wire fasteners. The outer end of each tie wire is provided with a head similar to that of a wire nail and holds a soft lead washer and before the wires are drawn up against the roofing, the inner surface of the washer and the head of the wire are daubed with plastic asbestos slaters' cement. The inner ends of the two wires are then twisted together around the purlin as shown. In applying the material to wooden purlins, iron wire nails with lead washers take the place of the aluminum tie wires just described.

The fastening for siding is somewhat different, consisting of a galvanized iron clip, bent so that the inner end rests over the purlin or other horizontal iron support. The

Continued on Page 188



Ambler Corrugated Asbestos Roofing and Siding as Applied to Coal Pockets of the Central Railroad of N. J., at Communipaw



Corrugated Asbestos Roofing and Siding Being Applied to Phosphate Rock Storage Bin of the American Agricultural Chemical Co., South Boca Grande, Fla.

Current Notes and Comment

It begins to look as though the Builders of San Francisco were verily going to turn the town over to the visiting Builders during American Builders' Week, October 18th to 23rd. We learn that they have reserved the largest ballroom at the famous Palace Hotel for a down-town social headquarters. The ballroom at the Inside Inn will be the social headquarters inside the Exposition grounds. The magnificent new municipal auditorium at the Civic Center, capable of accommodating easily over 5000 couples on the floor at the same time, has been engaged for the grand opening Builders' Ball. California's beautiful State Building inside the Exposition Grounds has been secured for a reception to the ladies while the men folks are absorbing wisdom in convention and in other ways. On Saturday evening, October 23rd, the week's business and ceremonies will terminate in a grand banquet at the Palace Hotel at which it is expected covers will be laid for 3000 Builders, and which will undoubtedly be the greatest gathering of its kind in the history of the world. Responses from all branches of the building business from all over the country are pouring in by mail, and those of our readers who intend participating in the festivities of Builders' Week are urged to at once secure their transportation, or they may, owing to the popularity of this unique event, suffer disappointment later. We are asked to state that the secretaries of all organizations identified with the building industry should, as early as possible, confer with their members as to their attendance, and send their reports to E. T. Thurston, Secretary of the General Committee, American Builders' Week, 57 Post Street, San Francisco.

It has been suggested that organizations of employers allied to the building business who contemplate visiting the Exposition in a body, should, if in any way possible, time their visit so as to bring it within the period designated by the National Association of Builders' Exchanges as American Builders' Week, October 18-23.

The first two stories of the Citizens National Bank building, illustrated in this issue, is of Raymond granite and the balance of the street fronts, of enameled brick and terra cotta, to match the granite. The entire building in plan and design is an expression of a practical modern office building, a substantial structure, simple in plan, with direct access to all offices, which are well lighted and of convenient size for office purposes. In its equipment the building is strictly up to date, with elevator service, the latest ideas in signal device, mail service, efficient means for handling of the building in the matter of janitor service, etc. The ground floor and basement is occupied by the Citizens National Bank. This department has an up to date ventilating installation, and means provided for controlling the temperature, the entire banking department, its room and equipment throughout em-

bodies the latest ideas in banking room arrangement and equipment.

The Citizens National Bank Building was designed by and constructed under the supervision of John Parkinson & Edwin Bergstrom, Architects. While this building was being completed the partnership agreement, which had existed for ten years between the members of this firm, terminated, and each has opened a separate office for the practice of architecture, John Parkinson in the Security Building and Edwin Bergstrom in the Citizens National Bank Building, in Los Angeles, Cal.

* * *

"We desire to call your attention to what is possibly the most strikingly beautiful example of enameled brick we have ever produced," says a representative of the Los Angeles Pressed Brick Co. "It is now being used for exterior facing of the Citizens National Bank Building, 5th and Spring Streets, Los Angeles.

"This brick, of a creamy white enriched by spots of bluish green, is the first of the kind ever seen on the Pacific Coast. We feel confident that the "Citizens" brick will appeal to you. The cost is no more than for other shades of our enameled brick. Samples will gladly be submitted upon request."

* * *

The name of the Los Angeles Pressed Brick Company of Richmond, California, has been changed to the Richmond Pressed Brick Company. It was believed by the directors that the close association of the plant with the welfare and industry of the city, called for a more appropriate name. The Richmond plant has enjoyed a big success during recent years. It has been built up to its present capacity of about fifteen million brick and tile annually. Increased spur trackage has greatly facilitated deliveries. Superintendent John G. Gerlach, has been the recipient of congratulations for his splendid success in the management and enlargement of the plant.

* * *

The Raymond Stone Company, Los Angeles, furnished and erected the granite work for the Citizens National Bank Building of that city, illustrated in this issue. Raymond granite was used in effective manner. This company reports satisfactory business in Southern California.

* * *

The following architects have been granted certificates to practice architecture in California: Alben Froberg, 2320 A Bancroft Way, Berkeley; Harry Michelson, 1106 Mutual Savings Bank Building, San Francisco; George Wagner, 156 Devisadero Street, San Francisco.

Pacific Coast Chapters, A. I. A.

"THE ARCHITECT" IS THE OFFICIAL ORGAN OF THE SAN FRANCISCO CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS.

SAN FRANCISCO CHAPTER, 1881—PRESIDENT, WILLIAM B. FAVILLE, BALBOA BUILDING, SAN FRANCISCO, CAL. SECRETARY, SYLVAIN SCHNAITTACHER, 233 POST STREET, SAN FRANCISCO, CAL. CHAIRMAN OF COMMITTEE ON PUBLIC INFORMATION, WILLIAM MOOSER, NEVADA BANK BUILDING. CHAIRMAN OF COMMITTEE ON COMPETITION, WILLIAM B. FAVILLE, BALBOA BUILDING, SAN FRANCISCO. DATE OF MEETINGS, THIRD THURSDAY OF EVERY MONTH; ANNUAL, OCTOBER.

SOUTHERN CALIFORNIA CHAPTER, 1894—PRESIDENT, A. C. MARTIN, 430 HIGGINS BUILDING, LOS ANGELES, CAL. SECRETARY, FERNAND PARMENTIER, BYRNE BUILDING, LOS ANGELES, CAL. CHAIRMAN OF COMMITTEE ON INFORMATION, W. C. PENNELL, WRIGHT & CALLENDER BUILDING, LOS ANGELES. DATE OF MEETINGS, SECOND TUESDAY; EXCEPT JULY AND AUGUST, AT LOS ANGELES.

OREGON CHAPTER, 1911—PRESIDENT, A. E. DOYLE, WORCESTER BUILDING, PORTLAND, ORE. SECRETARY, WILLIAM G. HOLFORD, CHAMBER OF COMMERCE BUILDING, PORTLAND, ORE. CHAIRMAN OF COMMITTEE ON PUBLIC INFORMATION, WILLIAM G. HOLFORD. DATE OF MEETINGS THIRD THURSDAY OF EVERY MONTH AT PORTLAND; ANNUAL, OCTOBER.

WASHINGTON STATE CHAPTER, 1894—PRESIDENT, JAMES H. SCHACK, LIPPY BUILDING, SEATTLE, WASH. SECRETARY, ARTHUR L. LOVE-

LESS, 513 COLEMAN BUILDING, SEATTLE, WASH. CHAIRMAN OF COMMITTEE ON PUBLIC INFORMATION, J. S. COTE, 520 HAIGHT BUILDING, SEATTLE. DATE OF MEETINGS, FIRST WEDNESDAY, EXCEPT JULY, AUGUST AND SEPTEMBER AT SEATTLE, EXCEPT ONE IN SPRING AT TACOMA; ANNUAL, NOVEMBER.

COLORADO CHAPTER, 1892—PRESIDENT, W. E. FISHER, RAILWAY EXCHANGE BUILDING, DENVER, COLO. SECRETARY, AARON M. GOVE, 519 BOSTON BUILDING, DENVER, COLO. CHAIRMAN OF COMMITTEE ON PUBLIC INFORMATION, ARTHUR A. FISHER, 459 RAILWAY EXCHANGE BUILDING, DENVER, COLO. DATE OF MEETINGS, FIRST MONDAY IN EVERY MONTH AT DENVER, COLO.; ANNUAL, SEPTEMBER.

THE AMERICAN INSTITUTE OF ARCHITECTS, THE OCTAGON, WASHINGTON, D. C. OFFICERS FOR 1915: PRESIDENT, R. CLIPSTON STURGIS, BOSTON, MASS.; FIRST VICE-PRESIDENT, THOMAS R. KIMBALL, OMAHA, NEB.; SECOND VICE-PRESIDENT, D. KNICKERBACKER BOYD, PHILADELPHIA, PA.; SECRETARY, BURT L. FENNER, NEW YORK CITY, N. Y.; TREASURER, J. L. MAURAN, ST. LOUIS, MO.

BOARD OF DIRECTORS FOR ONE YEAR—JOHN HALL RANKIN, PHILADELPHIA; C. GRANT LAFLAGE, 25 MADISON SQUARE, N. Y., NEW YORK, N. Y.; H. VAN BUREN MAGONIGLE, 7 WEST 38TH STREET, NEW YORK, N. Y. FOR TWO YEARS—OCTAVIUS MORGAN, 1126 VAN NUYS BLDG., LOS ANGELES, CAL.; W. R. B. WILCOX, CENTRAL BLDG., SEATTLE, WASH.; WALTER COOK, NEW YORK, N. Y. FOR THREE YEARS—CHARLES A. COOLIDGE, BOSTON, MASS.; CHARLES A. FAVROT, NEW ORLEANS, LA.; ELMER C. JENSEN, CHICAGO, ILL.

Minutes San Francisco Chapter, A. I. A.

The first monthly meeting after the summer vacation, of the San Francisco Chapter of the American Institute of Architects, was held at the Tait Zinkand Cafe, 168 O'Farrell Street, on Thursday evening, September 16th, 1915. The meeting was called to order at 7:45 o'clock by Mr. W. B. Faville, the President.

Minutes: The minutes of the meeting held June 17th, were read and approved.

Standing committees:

Board of Directors: The Chairman called on Mr. Mooser to make a report relative to a Special Meeting of the Board of Directors called to consider the participation of certain members of this Chapter in a competition held for a Bank Building in Stockton.

Mr. Moser stated that this was a particularly unfortunate affair, inasmuch as the invitation to submit plans did not come directly from the Bank, but through the general contractor who was to erect the building, and furthermore, the wording of the invitation was not calculated to add anything of dignity to the profession of architecture. The compensation for the successful architect did not include supervision. Ten architects or firms competed, six of whom were members of the Chapter, the successful competitor included.

The Board felt that it was up to the Chapter to decide in what manner this question should be handled and the future policy to be pursued in regard to competitions of this sort. Mr. Mooser stated that the competition for the Visalia Auditorium, while not so objectionable, was unauthorized and participated in by two Chapter Members, one of whom was successful in being awarded the commission.

Mr. Faville took occasion to call the attention of the Chapter to the new Constitution and By-Laws of the Institute, which provide for the Institute and Chapter reorganization.

Sub-Committee on Competitions: Mr. Mooser, Chairman of this Committee submitted the following written report in the matter of the Carnegie Library Association at Sacramento.

To the President and Members of the
San Francisco Chapter, A. I. A.
Gentlemen:

Some time in the month of May it became known that the City Council of Sacramento wished to procure plans for a Library Building, to cost approximately \$100,000.00. Several Architects after talking to the Commission proposed submitting plans according to a rough tentative scheme—others announced that they would not submit plans unless a

proper form of program was arranged. Three firms, however, did submit designs, after which the matter was reported by an Architect to the San Francisco "Sub-Committee on Competitions," with a request that they interview the authorities in Sacramento. The undersigned went to Sacramento and offered to assist the Board in their endeavor to arrange a proper competition, which offer they readily accepted. The program when submitted to the undersigned contained a statement that some seven Architects had been invited and had gone over the matter and were ready to submit drawings at short notice, so it was agreed that simple pencil drawings would answer the purpose, if all other matters as to the jury, regularity of drawings, etc., etc., were adhered to, but the drawing already submitted must be withdrawn. No prize money could be obtained. The program was then drawn substantially in accord with the code. After this, however, the Council passed an order that no mention be made of any invited Architects, but that any and all certified Architects in the State of California be invited to submit drawings in competition. No doubt had the matter been first reported to the Chapter, better terms, including prizes, could have been obtained. Again showing the members the necessity and importance of promptly notifying the Chapter of such affairs and also indicating that in a majority of such cases the authorities are glad to avail themselves of the opportunity of having a properly conducted competition.

Respectfully Submitted,
(Signed) WILLIAM MOOSER.

On concluding the reading of this report, Mr. Mooser stated that the Sacramento City Council desired the Chapter to nominate a member of the jury.

Communications: The following communications were read and ordered placed on file: From Burt L. Fenner, Secretary of the American Institute of Architects, asking for an expression of opinion from Chapter members as to the publication of proceedings of the Annual Conventions, and one relative to the reports of Standing and Special Committees of the Institute, which will be submitted at the 1915 convention; from Walter H. Parker, relative to the Stockton Savings Bank Competition.

Unfinished Business: There was no unfinished business.

New Business: After a general discussion concerning the participation of Chapter members in unauthorized competitions, the matter of the Stockton and Visalia competitions was left in the hands of the Board of Directors for further action.

In response to the request of the Sacramento City Council, Mr. Edgar A. Mathews was, on motion duly made, seconded and carried, nominated to act as a juror in the competition for the Carnegie Library at Sacramento.

Mr. Faville reported that the subscription list circulated for the Scholarship Fund for the Architectural League had netted one hundred and twenty dollars, which amount would be sent to the Treasurer of the League, and also the subscription list for the Chapter's share toward the expense of the Law of 1872 was in circulation.

In the matter of the communication from the Institute asking for an expression of opinion from the Chapter members as to the publication of complete proceedings of the Annual Convention, the Secretary was directed to reply that this was a matter that could be safely left to the Board of Directors of the Institute to decide.

On motion duly made, seconded and carried, the Secretary was directed to express the thanks of the Chapter to the Honorable Herbert C. Jones, for his efforts on behalf of the Bill repealing the Law of 1872, and to Mr. George S. McCallum for courtesies shown the Chapter Committee during the last session of the Legislature.

In the matter of the forthcoming excursion of the Institute, the matter of entertainment and program, was, on motion duly made, seconded and carried, left to the Board of Directors for action.

Mr. George B. McDougall, State Architect, informed the Chapter that nothing had been done with regard to the State Building in San Francisco, as the bonds had not as yet been placed on sale.

On motion duly made, seconded and carried, a resolution was adopted endorsing the preservation of such portions of the grounds and buildings of the Panama-Pacific International Exposition, as are feasible and that the Chapter was prepared to co-operate to that end if called upon to do so, and further, the Secretary was directed to inform the Panama-Pacific International Exposition Company and the Daily Press, accordingly.

Membership: Mr. Morris M. Bruce having made the necessary application for Chapter membership and having been balloted upon, fifty-six ballots were received and counted and Mr. Bruce was declared unanimously elected to Chapter membership.

The Secretary announced, with deep regret, the loss of the following members through death, since the last meeting: Mr. Charles F. Mau, on April 29th; Mr. Ralph Warner Hart on August 14th; and Mr. John Wright on August 23d. The Secretary was directed to express to the families of the deceased members, the deep regret and sympathy of the Chapter in their bereavement.

Nomination of officers: The next order of business was the nomination of officers for the ensuing year. The following were placed in nomination in accordance with the By-Laws and duly declared nominees to be voted on at the annual meeting in October:

President, W. B. Faville; Vice-President, Edgar A. Mathews; Secretary-Treasurer, Sylvain Schnaittacher; Trustees, Walter H. Parker and William H. Toepke.

Adjournment: There being no further business before the Chapter, the meeting adjourned at ten o'clock.

Minutes Southern California Chapter, A. I. A.

The Eighty-seventh meeting of the Southern California Chapter of the American Institute of Architects was held at the Hollenbeck Cafe, Los Angeles, on Tuesday, September 14th, 1915. The meeting was called to order at 7:30 p. m. by President A. C. Martin. The following members were present: J. E. Allison, J. J. Backus, E. P. Davis, R. C. Farrell, Homer W. Glidden, Chas. S. Greene, Henry M. Greene, J. W. Krause, John P. Krempel, A. C. Martin, H. H. Martin, S. B. Marston, Octavius Morgan, O. W. Morgan, Robert H. Orr, H. M. Patterson, A. F. Rosenheim, F. L. Stiff, August Wackerbarth, A. R. Walker, H. F. Withey.

As guests of the Chapter were present Mr. Oswald Speir, Mr. John Pelton, Architects of San Francisco; Mr. Joseph Bell De Remer and Mr. H. H. Hewitt, local Architects; C. J. Shultz and G. D. Donald, stereopticon operators; John Bowler and Wm. Dellamore of the Builder and Contractor; and W. E. Prine, of the Southwest Contractor.

The minutes of the Eighty-sixth meeting were read and approved.

For the Committee on Entertainment, Mr. Octavius Morgan, supplemented by Mr. S. Tilden Norton, informed the Chapter as to the itinerary and program outlined for the visiting members of the Institute's Board of Directors, their families and other Eastern Architects making up the party. This report was to the effect that the visitors would reach Los Angeles on Wednesday evening, October thirteenth, remaining in Los Angeles until late Friday evening of the same week. It was further understood that their program included a trip to Catalina on Thursday, October fourteenth, leaving Friday morning and a portion of the afternoon for the local Chapter's entertainment. This matter of entertainment, by resolution adopted, was referred to the Chapter's Entertainment Committee. Members of the Chapter were also urged to go to San Francisco in time to accompany the visitors on their trip south.

For the A. I. A. Sub-Committee on Competitions, Mr. Robert Orr and Mr. J. E. Allison called the attention of the President and the Committee on Competitions, to the recent alleged competition which took place for the Hospital and City Hall for the City of San Bernardino. This matter was referred to the Chapter's Committee on Competitions for investigation.

For the Committee on City Planning, no members of this Committee being present, Mr. H. F. Whitney reported that recommendations had been made by the Los Angeles City Planning Association to the Board of Freeholders that provision be made in the proposed new Charter, for a City Planning Commission. Such recommendation had been tentatively approved by the Board of Freeholders and referred to the Committee on Parks of the Board of Freeholders for consideration and final recommendation.

Communications were next read as follows: From Mr. Burt

L. Fenner, Secretary of the American Institute of Architects, requesting the holding of a meeting of the Chapter on or about November 15th, for the purpose of considering the Institute Committees' reports to be submitted to the 1915 convention, and requesting that delegates from the Southern California Chapter be properly instructed in regard to the matters presented. In view of the fact that this Chapter's regular meeting comes at about the time mentioned in the communication, these matters were referred to the November Chapter meeting.

From Mr. Burt L. Fenner, Secretary of the American Institute of Architects, requesting an expression from this Chapter as to the advisability of discontinuing the publication and distribution of the compleat proceedings of the annual convention and in case of such discontinuance offering as an alternative course that a published account or narrative of the transactions be provided in the Journal, but eliminating therefrom all irrelevant matter and all parliamentary discussions. This question by resolution adopted, was referred as a special order of business to the October meeting.

Following the reading of communications, the order of business was set aside in order to permit of the paper on Terra Cotta by Mr. Oswald Speir. Mr. Speir's highly interesting and instructive paper was illustrated with stereopticon slides, and at its conclusion it was moved by Mr. Morgan, duly seconded and carried, that a vote of thanks be rendered to Mr. Speir.

Under the head of unfinished business, the adoption of the Institute's Code of Ethics was presented for discussion. The Acting Secretary proceeded to read the document in effect by the Institute, and upon the conclusion of such reading it was moved by Mr. Rosenheim, seconded and carried, that this Chapter adopt the Institute Canons of Ethics as the Code of this Chapter.

Under the head of new business, a general discussion was entered into as to the advisability of deferring the date of next meeting inasmuch as that meeting date would possibly conflict with the arrangements to be made for the reception of the visiting Architects.

It was finally determined, however, that the regular meeting should occur as usual on the second Tuesday in October, and that such meeting should adjourn for one week, at which adjourned meeting all regular business of the Annual meeting should be transacted, and that on the evening of Wednesday, October 13th, a special meeting would probably be held, subject to announcement by the Secretary, the time and place to be determined upon by the Entertainment Committee.

The meeting adjourned at 10:50 p. m.

FERNAND PARMENTIER, Secretary,
By A. R. Walker.

Minutes Oregon Chapter, A. I. A.

Oregon Chapter, A. I. A., Minutes, Sept. 16, 1915: Minutes of the regular monthly meeting held at the Chamber of Commerce. Meeting called to order by President Doyle with Hogue, Johnson, Thompson, Whitehouse, Doyle, Naramore, Smith and Allyn, present.

In the absence of Mr. Holford Mr. Allyn was appointed Secretary pro tem. Minutes of July meeting approved without discussion. No meeting in August as a quorum was lacking.

Committee Reports: Municipal Plans and Affairs: Mr. Johnson, Chairman, reported on a proposition for excluding billboards, etc., on the Columbia River Highway.

Program and Entertainment: Mr. Naramore, Chairman, reported that a delegation of Eastern Architects would be in the city on October 4th, en route to the San Francisco exposition. Moved by Thompson, seconded by Whitehouse, and carried, that the Chapter members be assessed pro rata for the expense of entertaining the visiting architects.

Membership Committee: Mr. Doyle stated that Mr. Rich's application had been on hand for some time, but had not been acted upon on account of lack of a quorum at meeting. Secretary instructed to send out ballots to vote on this application.

Communications: Letter was read from H. A. Whitney to Mr. Whitehouse, Chairman of Competition Committee. Moved by Thompson, seconded by Johnson and carried, that President and Secretary write a reply to Mr. Whitney's letter. Moved by Hogue, seconded by Naramore and carried that Secretary notify Mr. Dieck that Mr. Whitney is no longer a member of the Chapter and consequently cannot represent the Chapter on the Building Code Revision Committee.

Letter read from Builders Exchange requesting the use by the Chapter members of the Standard Documents of the A. I. A. Moved by Johnson, seconded by Thompson and carried that the Secretary write each chapter member recommending the use of above mentioned documents.

Mr. Johnson and Mr. Hogue reported in the absence of Mr. Fouilhoux, on the recent passage of the City Ordnance reducing the area of the inner fire limits.

Nomination for officers to be elected at the Annual Meeting were made as follows: President, Doyle and Holford; Vice-President, Hogue and Johnson; Secretary, Jacobberger and Naramore; Treasurer, Fouilhoux and Johnson; Trustees, Whitehouse, Doyle, Holford and Naramore.

Meeting adjourned.

S. F. ALLYN, Secretary, pro tem.

WORK OF THE INSTITUTE
Continued from Page 157

charter provided for meetings in New York and those held outside have been technically illegal. The New York Legislature has revised the Charter to allow the meetings to be held elsewhere and the meeting was to accept this revised charter and legalize past acts. Now at last the Octagon is a reality. It is however in bad repair and house outbuildings and grounds require complete restoration. It will then be an example of an early 19th century gentleman's city house.

Mr. Brown, so long our Secretary, and so closely connected with this work, and with Mr. McKim, who had it so close to his heart, has prepared a Monograph of the building, made in the course of his work as the architect entrusted with the restoration, and the returns on this will help to restore the old building and make a fitting memorial to Mr. McKim. Men outside of the Institute should come in and share our pleasure in this historic headquarters.

Public Welfare: It would be impossible to review or even catalogue the work done by the Institute and its chapters in matters of public welfare—Building Laws, Fire Prevention, Insurance, Registration Laws, Town Planning. In every one of these fields and many more is the Institute working constantly.

The work done includes not only all these, which require constant revision, but the schedule of charges, our relations towards contractors and towards organized labor, towards the mechanics and the craftsmen. Mr. Taylor is right "we desire to be doing some good in some way," and if every man in the country fit for Institute membership will join and put his shoulder to the wheel the burden will be light.

* * *
LANDSCAPE ARCHITECTURE, AN ART WITH A HISTORY
Continued from Page 159

and space. There is a marked absence of symmetry in their designs as a whole. It appears, if at all, only in minor details. They show none of that recognition of axis or of balance about the axis, such a notable feature of Roman and Italian designs. They met their own

peculiar conditions well, however, and fitness may be said to have been their controlling motive.

These were warlike times and security was looked for first, with pleasure and beauty as later considerations. The gardens and grounds of the old monasteries and feudal castles were essentially places of leisure and contemplation, and the high embattled walls lent an element of austerity to such grounds. All these conditions made simplicity, fitness and a complete utilization of every part important. Castles were built on hill tops for their better defense, and areas were therefore limited and very irregular in outline, but this irregular space was completely utilized. Everything was compact, neat and orderly. There were noticeable features of English design, as we shall see, but the conditions of mediaeval times did not lend themselves to a high development of landscape design.

With the cessation of these harsh warlike conditions and the dawn of the Renaissance, landscape design entered upon a new and glorious era, for now, especially in Italy, great protective fortress walls were useless, and we begin to find country places designed solely for enjoyment and the entertainment of guests, not as retreats for protection from warlike neighbors. Then was developed that perfect thing in landscape design the Italian villa.

The greatest artists made plans for them, and as we study their work in this regard, we see that the best principles of landscape design were instinctively used. An Italian villa included the entire creation of roofed and unroofed buildings, terraces, fountains, paths, walls, seats and planting. Everything was most carefully provided for with one well rounded purpose in view.

The site was selected in an agreeable country, giving access to good breezes and rare views; accessibility and constructive considerations were remembered. There was always the closest adjustment of topography, but this adjustment differed from that of mediaeval times. These sloping situations led naturally to the development of the terrace, and while the Renaissance designers may have modified the topography more, they did not contradict it, as was done in the earlier Roman times.

To be concluded



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A CORRUGATED SHEET ASBESTOS CONCRETE FOR ROOFING AND SIDING

Continued from page 182

clip is fastened to the corrugated material by two one-quarter inch stove bolts, the heads of which are outside and rest against soft lead washers. Siding is secured to wooden frame work by means of nails, as in the case of roofing.

For the protection of corners and ridges, rolls of the same material as the roofing and siding are used. Those for corners are half cylinders made in lengths of 16, 42 and 56 inches, and so applied that the ends overlap. The ridge rolls are provided with 6-inch wings, which overlap the corrugated roofing. To admit of applying the ridge roll to any peak or angle, it is made in two parts, the half cylindrical parts turning one within the other to give the desired angle to the two wings.

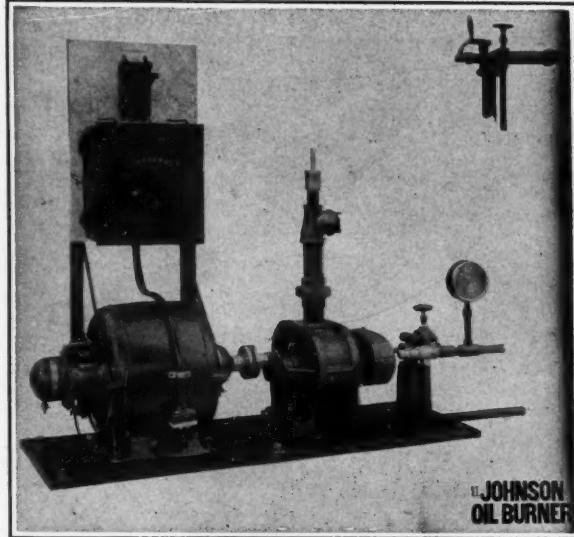
The accompanying photographs show buildings covered with the corrugated asbestos concrete roofing and siding, also the process of application. Corrugated asbestos roofing furnished by the Keasbey & Mattison Co. is being widely used for covering the buildings of steel and iron companies, gas works, elevators, chemical works, machine shops and foundries, warehouses, pier sheds, etc. Its permanent characted renders it much more economical in the long run than corrugated iron, either bare, painted, galvanized or otherwise covered.

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O. W. Degen,
Civil Engineer & Spt. of Const.

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